

Analytical estimation of ground-water flow around cutoff walls and into interceptor trenches

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Abstract

An impermeable boundary of the grout cutoff has been found that maximizes the seepage flow for a specified grouting volume. The shape of a trench has been defined that maximizes the quantity of fluid entering the ground-water flow from the trench. The seepage characteristics of the grout cutoff and the trench which have arbitrary shapes are estimated in terms of the derived exact analytical solutions of variational problems.
